# NEW YORK STATE
# PUBLIC TRANSPORTATION
# SAFETY BOARD

## *SYSTEM SAFETY PROGRAM PLAN GUIDELINES*

## *FOR SMALL TO MEDIUM SIZE BUS SYSTEMS*

***(BUS FLEET SIZE 1 TO 199)***

***Revised April 6, 2010***

**...** establish a public transportation safety board ... to insure the health and safety of the citizens of the State who use public transportation facilities. Legislative findings, L.1983, c.428§1.

# INTRODUCTION TO
# SYSTEM SAFFTY PROGRAM PLAN GUIDELINES

The following guidelines for a bus system safety program plan is intended to furnish an operational bus transportation system with the basic criteria for developing a safety program plan. These guidelines identify all the elements which should be considered in a systemwide approach to safety. They stress operational safety rather than industrial safety, as operational safety implies a broader perspective in providing a safety service to the fare paying public and as the bulk of the accidents occur in the operational aspect of the transportation system. The System Safety Program Plans which were developed by the American Public Transit Association for the Urban Mass Transportation Administration (now FTA) have been used as a resource material and are incorporated into the following System Safety Program Plan Guidelines.

The System Safety Program Plan Guidelines are intended to be flexible standards for developing a system safety program, and ensure that all essential elements are covered in a transit operator's safety program. One of the most significant factors guidelines and in the design of a system safety program, is the size of the bus system. The Public Transportation Safety Board recognizes and is sensitive to the diversity of bus transit systems and operational characteristics of the approximate 135 public transportation systems under its jurisdiction throughout New York State. This diversity of size and operational characteristics preclude the guidelines from being used to the same level of detail by each operator. Two separate guidelines have been developed to address small (1-25 buses), to medium (26-199 buses) systems and large (200+ buses) bus transit systems. The guidelines should be used to develop the most efficient and comprehensive plan for that system based on its characteristics. It is highly recommended that each system be familiar with expectations on the Federal level through contact with the USDOT Federal Transit Administration and Department of Homeland Security (TSA), and include information within the SSPP as appropriate.

It is the intent of these guidelines to highlight the significant factors which should be considered in the efficient and safe operation of transportation vehicles in providing a service to the public.

The paramount concern of the Public Transportation Safety Board, cited in the PTSB Rules and Regulations, is the actual and perceived value of requiring each transportation operator to develop and adopt a system safety program plan. The value of such a program is summarized by the following:

1. It gives evidence of a positive and active approach towards safety.
2. It enables the transit system to display to its best advantage its safety policies, programs and goals.
3. It gives the transportation operator a professional approach to safety.
4. It enables management to see its entire safety effort coordinated into a system wide approach.
5. It assures management that all safety responsibilities and tasks are documented in a logical and organized manner.
6. It develops a program where SAFETY is part of all decision-making processes.
7. It assures a consistent safety program among transportation operators through the State. If the outline of the revised Public Transportation Safety Board System Safety Program Plan Guidelines contains a program that the bus system does not have, the PTSB recommends that the bus system comply with that program to ensure a systematic approach to transportation safety.

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## SECTION 1 — EXECUTIVE STATEMENT

*Policy Statement*

The management statement of a system safety policy should be a brief statement made by senior management, which establishes the safety philosophy of the bus transportation system. This statement addresses the tone of the safety plan and gives direction to the individual or individuals responsible for implementing the system safety plan.

The system safety program plan is the top tier safety document within the transit property. The plan is intended to establish the safety philosophy and the property's commitment to safety. The plan should be signed by the senior executive.

*Authority*

The policy should define the authority and responsibility of the safety organization, including but not limited to the following:

1.1 Safety policy signed by the General Manager, President or Chairman of the Board.

1.2 Policy statement establishes safety philosophy for the agency.

1.3 Policy designates and directs responsible individual(s) to carry out the SSPP and provides the basis to carry out safety rules and procedures.

1.4 Policy defines safety's mission and role in the organization.

## SECTION 2 — GOALS AND POLICIES

The purpose of a bus system safety program plan is to improve public transportation safety by reducing the number, rate and severity of bus accidents. This section should identify the role that management plays in developing safety goals and performance measures necessary to accomplish the purpose of the SSPP. Both short and long term goals should be established and measures to gauge accomplishment should be described.

The role of the other organizations in the safety areas, and their interface with the safety organization within the property should be defined. For example, the Operations/Transportation Department has a key responsibility in developing operating procedures for abnormal and emergency situations.

2.1 Clearly define the safety goals and performance measures, both qualitatively and quantitatively.

2.2 Describe management participation in developing and updating goals and management's role and authority.

2.3 Describe the roles and authority of the company's departments/divisions/groups in establishing goals and policies. Interfaces defined.

2.4 Define safety's role, authority and interface with others, such as training, operations/transportation and maintenance.

2.5 Define and convey intent of goals and policies.

2.6 Safety goals and policies updated biennially, or as required based upon system changes.

## SECTION 3 – HISTORY AND BACKGROUND

In addition to the background of the carrier, the plan should discuss multijurisdictional operations (for example, operating in New Jersey and New York), and special leasing arrangements that could affect maintenance and operations.

Describe the following:

3.1 History/background of carrier (including parent and subsidiary companies, and their interfaces with local, county and state jurisdictions.

3.2 Legal status and structure, agency's charter.

3.3 How agency was formed (mergers, enabling legislation, etc.)

3.4 List governing regulatory agencies.

3.5 Description of the of the bus fleet

## SECTION 4 – SCOPE OF OPERATION

The plan should cover the type of service, the operating routes and schedules and maintenance requirements.

The operating and maintenance rules and procedures should be referenced and pertinent forms attached to the plan.

Describe the following:

4.1 The scope of bus transportation services provided by the company, including but not limited to the following.

4.1.1 Transportation modes· Types of, service (commuter, demand, etc.) percentage of service, annual number of passengers, annual number of revenue miles.

**Type of Operations**

(A) Schedule Local (B) Schedule Express (C) Charter (D) Subscription
(E) Demand (F) Other (Specify)

| | Company Name | Type of Service | Percentage of Service | Annual Number of Passengers | Annual Number Revenue Miles |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |

4.1.2 Operating schedules, routes, fleet size, types of patrons (school children, elderly, etc.) road conditions and operating environment.

4.1.3. Types, characteristics, models and age of buses used. See attached form EI-1.

4.1.4 Methods of control from dispatching facility.

4.2 List operating and maintenance rules and procedures including but not limited to the following:

4.2.1 Standard operating procedures (SOP's).

4.2.2 Emergency operating procedures (EOP's), addressing contingency plans and operations and maintenance participation.

4.2.3 Preventive maintenance of subsystems established with manpower size and qualifications for each trade established.

4.3 Training requirements for operations and maintenance personnel, including but not limited to the following:

4.3.1 Vehicle operator training requirements.

4.3.2 Dispatcher training requirements.

4.3.3 Facilities maintenance personnel training requirements.

4.3.4 Fleet maintenance personnel training requirements.

4.3.5 Training drills, refresher courses for operators and maintainers, types and frequency.

4.3.6 New employee orientation training and qualification requirements.

4.3.7 Employee special assistance programs (counseling, rehabilitation, etc.)

## SECTION 5 – ORGANIZATION

This section is a summary of the safety responsibilities of departments other than the safety department. It highlights their safety responsibilities as it contributes to the safety of passengers, employees of the general public and which prevent or reduces damages to property. A summary of safety responsibilities of each individual would be sufficient.

Some examples of safety-related responsibilities of other departments are training (where training is not a function of the safety staff), investigation of unsafe practices (where all departments would be involved), disciplinary actions (where each department head or supervisor is responsible for the actions of his employees), safety rules and procedures, routine maintenance checks, investigation of security incidents such as thefts, fights, intoxicated passengers, terror threats, etc.

In order to involve the entire organization in safety, which is system safety, the system safety program plan should identify what the contribution of each group is in promoting a safe transportation service.

The plan should describe or show geographically all the organizational elements within the system. Inter-relationships should be described.

5.1 Organizational structure defined and all department/division/group/sections shown on organizational chart.

5.2 Roles, responsibilities, authority and interfaces defined. All in-house organizations have data and understand interrelationships.

5.3 Describe how safety recommends safety changes related to: functional/organizational changes for management review and approval.

## SECTION 6 – PLANT EQUIPMENT AND FACILITIES

The plan should contain a comprehensive description of plant, equipment and the facilities.

Describe the following:

6.1 Stations/bus stops characteristics (e.g., at-grade, mixed traffic, pedestrian mall, multi-modal transfer station, etc.)

6.1.1 Loading and unloading zones are clearly signed and marked.

6.1.2 Bus station/stops meet accessibility requirements for patrons including elderly and handicapped.

6.1.3 Stations/bus stops continually evaluated for safety and security of passengers accessing stops.

6.2 Dispatching facility contains safety related characteristics including but not limited to the following.

6.2.1 Dispatching procedures for normal operations and contingency plans have been developed.

6.2.2 The staffing requirements for the dispatchers have been studied and incorporated.

6.2.3 Ergometric design requirements have been incorporated into the facility.

6.2.4 Standard operating procedures (SOPS) and emergency operating procedures (EOPS) are in place at dispatching facility.

6.2.5 SOPS and EOPS are approved, distributed and readily available to dispatchers.

6.2.6 Dispatchers are familiar with the current SOPS and EOPS, which are in place (see Section 11).

6.2.7 Fire protection measures at dispatching facility (suppression, detectors, extinguishers) are in place.

6.3 The maintenance facilities contains safety related characteristics including but not limited to the following:

6.3.1 Maintenance facilities include definition of characteristics for each facility (type, of maintenance, layout, etc.).

6.3.2 Fire/life safety equipment at the maintenance facilities are in place, such as sprinklers, detectors & fire extinguishers.

6.3.3 Safety related maintenance procedures are in place (e.g., jack stands, machine operations, moving buses, etc.).

6.4 The bus fleet contains safety related characteristics including but not limited to the following:

6.4.1 Safety related bus characteristics and on-board subsystems/equipment (e.g., brakes, wheelchair lift, radio).

6.4.2 Bus crash worthiness, flammability (meets FMVSS and APTA recommended build standards).

6.4.3 Bus camera systems.

6.4.4 Bus equipment by-pass controls and releases.

6.4.5 Bus communication system.

6.4.6 Bus fire extinguishers.

6.4.7 Bus emergency exits, door releases, door interlocks.

6.5 The on-board systems, equipment functions and description, these items can be described in the appendices. Include as a minimum the following:

6.5.1 Bus event evaluation system – “black box” (normal and emergency).

6.5.2 Bus kneeling equipment and wheelchair lift system.

6.5.3 Bus engine, drive system, steering and suspension systems.

## SECTION 7 — SYSTEM MODIFICATION

The plan should address any ongoing or planned activities that in turn result in changes to the SSPP.

Describe the following:

7.1 Provide rules and procedures on incorporating changes and modifications into the bus system, including but not limited to the following:

7.1.2 Provisions for incorporating new/upgraded bus fleet into the system and provision regarding the purchase and maintenance of used buses.

7.1.3 Provisions for incorporating new/upgraded facilities, plant into the bus system are provided.

7.1.4 Provisions to incorporate new/upgraded equipment/e.g. fare collection, automatic vehicle locater (AVL), communications, cameras, mirrors, black box, etc.) in to the bus system.

7.1.5 Provisions to incorporate changes in operations (e.g., type and/or frequency of service) into the bus system.

7.2 Procedures to evaluate the effect of modifications/new systems on safety (ref. 7.1), including but not limited to the following:

7.2.1 Safety review required for standard and emergency operating procedure changes.

7.2.2 Safety review/requirements are part of the system procurement practices.

7.2.3 Safety review required prior to instituting operations changes.

7.2.4 Results of safety review, prior to instituting system changes, are reported and tracked.

7.3 Explain safety's analyses of reviewed and upgraded provisions and procedures as required by the evaluation of system modifications.

## SECTION 8 — SYSTEM SAFETY ORGANIZATION

The plan should present a detailed description of the (system) safety staff, the qualifications of personnel, any planned short and long term additions to the safety organization's mission and any additional staff which may be required. Specific roles and responsibilities should be included.

Describe the following:

8.1 The system safety organizational structure.

8.2 Roles, responsibilities, authority and interfaces defined within the system safety organization including but not limited to the following:

8.2.1 Safety responsibilities established/assigned to designated individuals.

8.2.2 Safety initiates safety actions and is responsible for dissemination and coordination of information.

8.2.3 Safety initiatives are by other departs/divisions/groups.

8.3 Safety group is adequately staffed for roles and responsibilities.

8.4 Safety staff qualifications.

8.5 Safety staff trained in appropriate disciplines.

## SECTION 9 – PARTICIPATION ON SAFETY COMMITTEES AND BOARDS

The plan should address the various committees and boards where safety is a vital concern. Examples are the accident/incident investigation team, a safety committee, liaison committees with local enforcement and emergency response groups if applicable and safety meetings.

Describe the following:

9.1 Safety represented on the property's safety committee.

9.1.1 The mission of the property's safety committee and the roles of the members.

9.2 Safety is a permanent member of the accident/incident investigation team.

9.2.1 The mission of the accident/incident team and the role of its members.

9.3 Safety conducts tool box or local safety meetings at least monthly or as needed and other departments participate as required/planned.

9.3.1 Tool box meetings are scheduled on a regular basis, with planned topics. Attendance is taken and makeup's scheduled.

9.3.2 Safety has a procedure in place to process safety concerns raised at tool box meetings and provides feedback to the individual.

9.4 Reports are prepared and distributed to top management and other departments identifying action items and organizational responsibility.

## SECTION 10 – MAINTAIN SYSTEM SAFETY PROGRAM PLAN

This section should describe the bus system's policy for review, update and refinement of the system safety program plan. A biennial recertification will be provided every other year. The recertification will be submitted to the PTSB for their review and approval. A new official resolution will be issued to the bus system to represent the SSPP with the recertification annexed to the original SSPP on file with the PTSB staff. The internal review of the SSPP should be included in this section.

The biennial recertification will include as a minimum:

- Number of passenger fare vehicles (E 1-1 form)
- Number of personnel
- Changes in any policies, procedures and practices
- Changes in facilities
- Number of accident occurrences investigated and preventability determined for each incident in the reporting period.
- Performance measures evaluated and updates as needed.

The System Safety Plan requires that top management or the principal officer certify and sign, the document as to the description of the bus properties total operation scope.

Describe the following:

10.1 Procedures in place to revise the plan biennially and submit it to the PTSB.

10.2 Procedures in place to control revisions; distribute changes to SSPP.

10.3 Procedure in place to update the plan as required for priority/critical items and events, including but not limited to the following:

10.3.1 New/extended/upgraded service and/or routes require an update to the SSPP.

10.3.2 New/retrofitted bus fleet requires an update to SSPP.

10.3.3 New/refurbished facilities require an update to the SSPP.

10.3.4 New/revised emergency operating procedures require an update to the SSPP.

10.3.5 Organization changes require an update to the SSPP.

10.4 Procedure and process in place to coordinate revisions to the SSPP within the transit property including but not limited to the following:

10.4.1 Safety review personnel participate in the review of SSPP revisions.

10.4.2 Maintenance participates in the review of SSPP revisions.

10.4.3 Operations participates in the review of SSPP revisions.

10.4.4 Training participants in the review of SSPP revisions.

10.5 Comments from internal and external review process kept on file with disposition and supporting rationale.

10.6 Procedure in place for written documentation of all responsible individuals with the property who has received, has full knowledge of and responsible for implementation of all or parts of the SSPP.

## SECTION 11 – SAFETY RESPONSIBILITIES

Other organizations in addition to safety have critical safety roles. These include transportation, maintenance, training and personnel (or the department having that responsibility). The plan should clearly identify the detailed responsibility of each and safety's interface in these activities. Describe the following:

11.1 Policy in place describing safety responsibilities of transit system departments, other than safety. Included, but not limited to the following:

11.2 Operations/transportation responsibilities include but are not limited to the following:

11.2.1 Operations/transportation develops emergency operating procedures including but not limited to the following:

11.2.1.1 Emergency operating procedure for fire or smoke on a bus is developed by operations/transportation.

11.2.1.2 Emergency operating procedure for passenger evacuation from a bus is developed by operations/transportation.

11.2.1.3 Emergency operating procedure for collision with another vehicle or fixed object is developed by operations/transportation.

11.2.1.4 Emergency operating procedure for struck pedestrian is developed by operations/ transportation.

11.2.1.5 Emergency operating procedure for disruption/incident on a bus is developed by operations/transportation.

11.2.1.6 Emergency operating procedure for security threat is developed by operations/transportation.

11.2.1.7 Operating procedure for inclement weather (snow, fog, etc.,) is developed by operations/transportation.

11.2.1.8 Operating procedure for detour is developed by operations/transportation.

11.2.1.9 Operating procedure of collision in garage or storage area is developed by operations/transportation.

11.2.1.10 Operating procedure for accidents/incidents involving equipment failure is developed by operations/transportation.

11.2.2 Operations/transportation defines facilities, equipment and personnel required to support/enhance system safety, such as the following:

11.2.3 Operations/transportation takes steps to familiarize personnel with safety equipment, use and locations.

11.2.4 Operations/transportation takes steps to identify unsafe practices and procedures throughout the transit system.

11.2.5 Operations/transportation helps investigate unsafe practices and procedures.

11.2.6 Operations/transportation helps investigate accidents and incidents.

11.2.7 Operations/transportation establishes disciplinary procedures for unsafe acts, practices and rule violations.

11.2.8 Operations/transportation helps establish safety training requirements for various positions including but not limited to the following:

11.2.8.1 Operations/transportation helps establish safety training requirements for operators.

11.2.8.2 Operations/transportation helps establish safety training requirements for dispatchers or those performing function.

11.2.9 Operations/transportation participates in drills and simulations to validate procedures and training.

11.2.10 Operations/transportation establishes requisite tests and inspections (Section 17).

11.2.11 Safety performance is part of employee evaluation in operations/transportation.

11.3 Maintenance responsibilities include but are not limited to the following:

11.3.1 Maintenance defines support equipment, personnel and procedures for responding to emergencies.

11.3.2 Maintenance takes steps to identify unsafe practices and procedures throughout the transit system.

11.3.3 Maintenance helps investigate unsafe practices and procedures.

11.3.4 Maintenance helps investigate accidents and incidents.

11.3.5 Maintenance establishes disciplinary procedures for unsafe acts, practices or rule violations (part of the union contract).

11.3.6 Maintenance helps establish safety training requirements for maintenance activities and areas including but not limited to the following:

11.3.6.1 Maintenance participates in drills and simulation's to validate procedures and training.

11.3.6.2 Safety performance is part of employee maintenance evaluation process.

11.4 Training responsibilities include but are not limited to the following:

11.4.1 Training integrates safety requirements into training programs.

11.4.2 Training provides feedback on procedures, rules, designs and operating conditions.

11.4.3 Training helps validate safety training effectiveness.

11.4.4 Training program incorporates the requirements of NYS PTSB Rules and Regulations, DMV V&T Article 19A, Special Requirements for Bus Drivers, FTA rules for CDL holders, drug and alcohol use, and ADA.

11.5 Personnel responsibilities include but are not limited to the following:

11.5.1 Personnel establishes hiring procedures, which include the requisites of NYSDOT, DMV V&T Article 19A, and FMCSR.

11.5.2 Personnel incorporates safety qualifications into job requirements and reviews applicant history prior to hiring.

11.5.2.1 Personnel defines minimum qualifications.

11.5.2.2 Personnel uses test for operators to determine qualifications of new operators.

11.5.2.3 Personnel administers proficiency exam to applicants to rate qualifications and experience in appropriate fields.

11.5.2.4 Personnel requires pre-employment physical exam, medical, mental and physical conditions established.

11.5.2.5 Personnel verifies driving record statewide and nationwide.

11.5.2.6 Personnel verifies previous employment record.

11.5.2.7 Personnel verifies required licenses and certificates prior to hiring.

11.5.3 Personnel ensures new hires receive safety training during indoctrination program.

11.5.4 Personnel verifies new hires sign a receipt acknowledging their rule book was received and read.

11.5.5 Personnel continually reviews personnel compliance with job requirements.

11.5.6 Personnel reviews employee record of preventable accidents/mishaps on the job and initiates retraining.

11.5.7 Personnel requires physical exam as required.

11.5.8 Personnel administers an in place drug and alcohol abuse program.

11.5.8.1 Personnel requires a pre-employment drug and alcohol test.

11.5.8.2 Personnel requires drug and alcohol annual test.

11.5.8.3 Personnel administer an employee assistance program (EAP) for drug and alcohol abuse.

11.5.9 Personnel require drivers of all vehicles to show their driver's license periodically.

11.5.10 Personnel verifies that property conforms to requirements of the Commercial Motor Vehicle Safety Act of 1986 (CDL).

11.6 Procurement coordinates with safety on the purchase of new buses and equipment; ensures compliance with FMCSA, FMCSS and APTA guidelines.

11.7 Procurement decisions are coordinated with safety on the purchase of hazardous materials.

**SECTION 12 – HAZARD IDENTIFICATION ANALYSIS AND RESOLUTION**

Hazard Assessment Policy - Hazard analysis is analysis performed to identify hazardous conditions for the purpose of their elimination or control. This is a systematic approach to identify hazards that start with basic parts and subsystems and interprets the possible hazards or failures which could occur. Once hazards are identified, they should be assessed to determine their impact on the total system. This is whether to accept the hazard or to determine the extent of corrective measures to eliminate the hazard or reduce its severity.

Describe the hazard assessment policy as it effects the entire operation of your company (in describing hazards, use Hazardous Assessment Form HA-1, (11/06). see attached).

a. Categorize level of severity.

1. Catastrophic - may cause death.
2. Critical - may cause severe illness, severe injury or major system loss.
3. Marginal - may cause minor injury, illness or loss.
4. Negligible - not result in injury, illness or system damage.

b. Categorize the likelihood of occurrence.

1. Highly likely - frequent reoccurrence.
2. Likely - expected occurrence.
3. Unlikely - occurrence not expected.

12.1 Plan and procedures in place for hazard identification.

12.2 Define internal safety data sources for hazard identification. Data sources include but are not limited to the following:

12.2.1 Safety analyses are used as data sources for hazard identification.

12.2.2 Testing (See Section 17) is used as a data source for hazard identification.

12.2.3 Inspections by safety/others are used as data sources for hazard identification.

12.2.4 Audits by safety/others are used as data sources for hazard identification.

12.2.5 Defect reports are used as data sources for hazard identification.

12.2.6 Incident and accident reports are used as data sources for hazard identification.

12.2.7 Preventive and corrective maintenance reports are used as data sources for hazard identification.

12.2.8 Dispatcher daily logs used as data source for hazard identification.

12.2.9 Passenger reports are used as data sources for hazard identification.

12.3 Define external safety data sources for hazard identification.

12.4 Data sources routed to safety for evaluation of potential hazards.

12.5 Field personnel have access to hazard identification and reporting process.

12.6 On-going operations monitored and reviewed for identification of potential hazards. Includes bus stops, shelters, road conditions, route changes, sight restricted intersections, etc.

12.7 Equipment inspected/analyzed for potential safety hazards includes but not limited to the following:

12.7.1 Bus, wreckers, mobile repair units are inspected/analyzed for potential safety hazards.

12.7.2 Communications (Radio/Automatic Vehicle Locator) is inspected/analyzed for potential safety hazards.

12.7.3 Fare collection equipment is inspected/analyzed for potential safety hazards; i.e. protecting patrons from falling against the fare box.

12.7.4 Security systems are inspected/analyzed for potential safety hazards.

12.8 Operating and maintenance procedures analyzed for potential safety hazards.

12.9 Personnel receives periodic training to perform hazard identification reporting.

HAZARD RESOLUTION

The purpose of this task is to identify, on a priority basis, resolutions or controls to prevent potential hazards from becoming incidents or accidents. Those hazards which have been identified and assessed as to severity and likelihood of occurrence should be prioritized for resolution action. The following activities should be carried out in performing this task.

Describe how they are carried out on your property:

12.10 Methodology and procedures for hazard assessment and resolution established.

12.11 Hazard reports routed to safety.

12.12 Tracking system for identified hazards in place.

12.13 Priority of hazards based on hazard severity, probability of occurrence and if able, the cost of corrective action.

12.14 Acceptable level of risk established and on file.

12.15 Close-out of corrected/resolved items is signed-off by all involved departments and proper authority.

12.16 Corrective action follows system safety precedence and includes design, safety and warning devices, training, personal protection equipment.

12.17 Corrective actions to identified hazards are monitored for effectiveness.

## SECTION 13 – SECURITY AND EMERGENCY AWARENESS

A Security and Emergency Response Plan, due to its confidential nature, should be referenced here, but maintained as a separate document. The plan should include:

13.1 Vulnerability self-assessment
13.2 Employee awareness training for detection and deterrence
13.3 Proper maintenance and control of the documents that are security sensitive
13.4 Actively receiving security alerts from FTA and DHS
13.5 Support local emergency preparedness plans and capabilities

## SECTION 14 – ACCIDENT/INCIDENT INVESTIGATION

The plan should address the concept of accident/incident investigation and if a procedure exists. The procedure should define what constitutes an accident and incident, internal and external notification procedures, participants, reporting and the required follow-up action with assigned responsibilities.

14.1 Plan and procedures in place; all recordable injuries, illnesses and property damage losses investigated.

14.1.1 Responsibilities of safety personnel are defined and personnel are trained in accident investigation (at least one person must be certified in NYSDOT Bus Accident Investigation Training For Identifying Safety Hazards (BAITFISH) program.

14.1.2 Responsibilities of organizations other than safety are defined (Operations, Traffic, Maintenance, etc.) for accident investigations.

14.1.3 Criteria for conducting investigation is defined.

14.1.4 Criteria for notifying external organizations is defined. PTSB notification criteria is posted and followed in timely manor.

14.2 Equipment, (e.g. camera, witness forms, checklists) is provided.

14.3 Previous investigation records meet the following requirements:

14.3.1 Investigation fully documented with recommendations to management.

14.3.1.1 Accident/incident classified according to hazardous condition, unsafe act, etc.

14.3.1.2 Cost of accident analyzed and categorized.

14.3.1.3 Accident recommendations prioritized.

14.3.2 Recommendations implemented or rationale as to why not.

14.3.3 Follow-up checks performed on the effectiveness of recommendations.

14.3.4 Provisions to amend/revise accident/ incident investigation plan are established.

14.4 Accident investigation plan is tied into a program to determine the preventability of an accident/incident (required by PTSB regulation), and used by carrier to determine proper retraining and /or discipline.

14.5 Results and recommendations of accident/incident investigation are distributed to appropriate parties.

14.6 Analysis of accidents (including cost, injury, lost work days and property loss) are reported on scheduled basis (e.g., quarterly) to management.

14.7 Accident/incident investigation reports and/or recommendations are part of safety data file.

14.7.1 Records are maintained in accordance with federal and state laws.

14.7.2 Reports are retained as required by law.

14.7.3 Records are readily accessible.

**SECTION 15 – SAFETY TRAINING**

The plan should clearly explain the responsibilities and authority of the organization to establish and define safety requirements as part of the overall training program.

15.1 Training program plan is in place and reviewed biennially, or more frequently as required.

15.1.1 Lesson plans current, reflect correct operating procedures and training requirements.

15.1.2 Training program incorporates the, requirements of NYS V&T Article 19A, and Federal Motor Vehicle Safety Act of 1986 (CDL).

15.2 Safety is part of the overall training program.

15.2.1 Safety training is integrated into the overall training program, with inputs provided or approved by safety.

15.2.2 Instructors meet selection standards which include safety training or safety personnel used.

15.3 Safety training goals, objectives and requirements documented.

15.3.1 As part of the training program, students are provided manuals, safety rules and a rule book.

15.3.2 In order to satisfactorily complete the training, students must demonstrate familiarity with the safety rules.

15.3.3 In order to satisfactorily complete the training, students must demonstrate familiarity with the procedure to identify, assess and report hazards.

15.3.4 Training has in place a process to obtain feedback from students completing the program about the effectiveness of the instruction.

15.3.5 Records are maintained on the numbers of students who completed and don't complete the training and reasons why students do not finish.

15.3.6 Safety periodically audits the training and the quality and effectiveness in meeting the safety related goals and objectives.

15.4 Training requirements are established for each trade in the organization.

15.5 Training requirements are established for the bus operator to include but not limited to the following:

15.5.1 General orientation program with the property.

15.5.2 Defines the scope of the program, including what is covered in the classroom and on the road.

15.5.3 An explanation of management policies, including management's attitude towards safety.

15.5.4 The state and any specific local safety rules and regulations (also federal, if applicable).

15.5.5 Familiarization with the property's facilities and the local area.

15.5.6 Thorough coverage of the role of safety in the overall organization and in operations.

15.5.7 Route training, map reading (if applicable) and the location of medical, police and fire facilities.

15.5.8 Instruction on operation of safety related equipment, to include but not limited to the following:

15.5.8.1 Safe operation of the doors, door interlocks and other safety features.

15.5.8.2 Safe operation of the kneeling system and safety features.

15.5.8.3 Safe operation of wheelchair lift and its safety features and tie downs or locking devices.

15.5.8.4 Safe, operation of brakes and safe acceleration and deceleration rates.

15.5.8.5 Use of the mirrors, wipers and sun visor.

15.5.8.6 Use of the communication systems such as the radio and bus security. Bus operators are taught the to understand the issues of driver distraction (includes cell phone, PED's, texting, etc.).

15.5.9 Passenger safety to include but not limited to the following:

15.5.9.1 On-board causes of accidents, injuries, safe acceleration and deceleration rates.

15.5.9.2 Physical limitations of the elderly and disabled persons and sensitivity training.

15.5.10 Emergency/standard operating procedures (ESOP) to include but not limited to the following:

15.5.10.1 Traffic accidents.

15.5.10.2 Collision with fixed objects.

15.5.10.3 On-board fire or smoke.

15.5.10.4 Passenger injury or illness.

15.5.10.5 On-board theft, fight or improper conduct.

15.5.10.6 Flooding of route, severe weather.

15.5.10.7 Operator provided accident kit, (e.g., witness forms)

15.5.10.8 Safety issues/concerns involving bus stops, shelters

15.5.11 A formal defensive driver training program. Describe defensive driver training program (DDT). Include all written instructional material used in training programs in

15.5.12 Frequent safety meetings conducted for operators and the topics are scheduled and planned. Safety bulletins are posted. (Describe type, length of training)

15.5.13 In case of an accident, an investigation is conducted and the operator's record is reviewed, caused determined and the operator debriefed.

15.5.13.1 Accident data is filed in data bank and the operator's file whether or not determined preventability is involved.

15.5.14 New hires/newly assigned bus operators receive safety training prior to performing job.

15.5.15 Retraining procedures in place for operators include the following:

15.5.15.1 Retraining bus operators for cause, including violations of defensive driving, passenger relations, emergency operating procedures, federal, state and local regulations, company rules and regulations, and bus orientation.

15.6.1 Training requirements established for dispatcher functions.

15.6.1.1 New hires/newly assigned personnel performing dispatcher functions receive safety training prior to performing job.

15.6.1.2 Retraining of personnel performing dispatcher functions.

15.6.1.3 Retraining of personnel performing dispatcher functions for cause.

15.6.1.4 Obtain feedback to evaluate the training given personnel performing dispatcher functions.

15.6.1.5 Personnel performing dispatcher functions receive training on responding to normal, abnormal and emergency situations (i.e. assisting BO with emergency conditions involving bus, brakes, tire fires, etc).

15.6.1.6 Accident and incident data used to help evaluate training effectiveness of personnel performing dispatcher functions.

15.7 Maintenance training for bus maintainers include the following:

15.7.1 Training mechanics on the equipment for which they have a responsibility.

15.7.2 Define scope and objectives.

15.7.3 Property's policies, including management's policy and attitude towards safety.

15.7.4 Covers applicable rules and regulations and how they are enforced.

15.7.5 Forms and procedures used by the maintenance department, their purpose and how to complete them.

15.7.6 The role of safety when performing normal tasks and when responding to other than normal duties.

15.7.7 Bus maintenance training program includes shop and overall facility familiarization.

15.7.8 Instruction on the operation and maintenance of on board safety equipment, to include:

15.7.8.1 Maintenance and safety operation of the doors, door interlocks and brakes, wheelchair lifts, bike racks, etc.

15.7.8.2 Maintenance and safe operation of kneeling system/wheelchair lift and its safety features.

15.7.8.3 Maintenance and safe operation of the brake system and its safety features.

15.7.8.4 Maintenance and safe operation of the electrical systems, including cameras, GPS, etc.

15.7.8.5 Maintenance and safe operation of engine and drive systems, steering and suspension systems.

15.7.8.6 Maintenance and safe operation of the horn, interior and exterior lights and the wipers.

15.7.8.7 Use and care of personal protective equipment.

15.7.8.8 Safe use of repair equipment and protective measures to be taken during operations.

15.7.8.9 Road call procedures.

15.7.8.10 Operation and safe use of shop equipment, such as air tools, jacks, lifts and cranes.

15.7.10 Training manuals provided for each type bus and system/equipment maintained on the property such as:

15.7.10.1 Maintenance manuals for training are complete and current.

15.7.10.2 Updates/revisions are controlled with accountability.

15.7.11 Manufacturers participate in maintenance training whenever new equipment is brought on-board including retrofit program.

15.7.12 New hires/newly assigned bus maintainers receive safety training, including driving training prior to performing job.

15.7.13 Schedule for retraining/upgrading bus maintainers in place and followed.

15.7.14 Procedure in place for retraining bus maintainers, including driver retraining, for cause.

15.8 Training program in place for facility maintainers.

15.8.1 New hires/newly assigned facility maintainers receive safety training prior to performing job.

15.8.2 Schedule in place for retraining facility maintainers and is followed.

**SECTION 16 – EMERGENCY DRILLS AND SIMULATIONS**

This section defines the relationship safety has concerning emergency response preparedness.

16.1 Emergency response plan in place, includes schedule for conducting drills and simulations.

16.2 Emergency planning for drills and simulations includes inputs from and participation of the safety committee.

16.3 Emergency operating procedures already in place prior to the conduct of drills and simulations.

**SECTION 17 – SAFETY TESTS AND INSPECTIONS**

Operations and maintenance affect safety in that well maintained equipment and facilities will result in a reduction in potential hazards. Poor maintenance and poor routine safety checks lead to the likelihood of more accidents or unsafe conditions.

The plan should identify or reference the source of information on the types of tests and inspections that the different organizations perform (on a scheduled basis) to help ensure the safety of the passengers, and the general public. Vehicles should be inspected within the vehicle manufacturer's minimum recommendations for mile intervals or time and then adjusted for local conditions, if more restrictive.

This section should cover those operating rules and procedures and maintenance rules and procedures as they apply to safety. Unique situations which require special operating procedures should be highlighted, as in the case of snow emergency plans, mass evacuation, emergency preparedness, heavy traffic conditions, etc.

Safety-related maintenance procedures should be highlighted in this section. This would include all equipment and locations which require maintenance, the frequency in which this is carried out, the reports made on maintenance, flow of information and working schedules and responsibilities of maintenance personnel. Include a sample of all maintenance forms in appendices.

The routine procedures include pre/post-trip inspection procedures, which a bus operator is required to carry out daily. Defects that are discovered while in service must also be summarized in this section and signed off by a mechanic prior to the bus returning to passenger service.

Such as the following:

17.1 Operator conducts pre and post trip inspections on bus equipment to include but not limited to the following:

17.1.1 Brakes and air system.

17.1.2 The door system.

17.1.3 On-board communications

systems, AVL and exterior and interior

lights, cameras and reflectors.

17.1.4 Tires, lug nuts and studs.

17.5.5 Steering assembly.

17.1.6 Wheelchair lift/kneeling systems and tie down systems.

17.1.7 Windshield wipers, mirrors, horn and seat belts.

17.1.8 Bus exterior, bus interior and steps.

17.1.9 Suspension system.

17.1.10 On-board tire extinguisher, first aid kit, and triangle reflectors.

17.2 Preventive maintenance procedures and schedules are included but are not limited to the following tests and inspections:

17.2.1 The brake and air system.

17.2.2 The door system.

17.2.3 On-board communication system, cameras, and interior and exterior lights.

17.2.4 Tires, lug nuts and studs.

17.2.5 Steering assembly.

17.2.6 Wheelchair lift/kneeling systems and tie down systems.

17.2.7 Windshield wipers, mirrors and horn.

17.2.8 Body exterior, interior and steps.

17.2.9 Suspension system.

17.2.10 On-board fire extinguisher, first-aid kit, fuses and triangle reflectors.

17.2.11 Seat belts.

17.3 Corrective maintenance procedures for equipment and systems in place to include but not limited to the following:

17.3.1 Procedures are current, and the revisions are controlled.

17.3.2 Maintainers are provided current corrective maintenance procedures and procedure in place to verify that they are followed.

17.3.3 Corrective maintenance actions are recorded and filed.

17.3.4 Corrective maintenance data is used for analysis and performing trend evaluations.

17.3.5 Operator's defect report is used for corrective maintenance planning.

17.3.6 Maintenance facility inoperative systems/equipment tagged, reported and scheduled for repair.

17.4 Bus stops and shelters-elements periodically inspected and reports and actions taken are filed.

17.4.1 Benches are provided in bus shelters at remote locations or at an infrequent stop.

17.4.2 Bus shelters have adequate interior lighting or street lighting.

17.4.3 Current bus route and schedule information in place at bus stops.

17.4.4 "No Parking" enforced at bus stops. Operators are required to report violations.

17.4.5 Bus stops are evaluated for the safety of bus operation, pedestrians and general traffic

17.5 Parking and storage procedures and equipment testing and inspection therein to include but not limited to the following:

17.5.1 Procedures in place for controlling movement, parking and storage of buses, maintenance and now revenue vehicles in the parking and storage areas.

17.5.2 Housekeeping, such as keeping lanes marked and clear, and debris picked up throughout the parking and storage areas, per in place schedule.

17.5.3 Periodic inspections made to keep emergency exits and access points clear, such as fire lanes, in parking storage, per in place schedule.

17.5.4 Procedures and schedule in place for the winterization of equipment.

17.6 Revenue service checks conducted to include but not limited to the following:

17.6.1 To determine the operator's general performance and conformance to the standard operating procedures, defensive driving techniques, routes.

17.6.2 To determine the operator's handling of elderly and disabled passengers and sensitivity to their situation and other passenger sensitivity issues. Ensure conformance to ADA requirements.

17.6.3 For schedule adherence.

17.6.4 Revenue service operation for conformance to V&T Laws (speed, following distance, cell phone usage, PED's, etc)

17.6.5 Reports are prepared and submitted for the revenue service checks conducted.

**SECTION 18 — INTERNAL REVIEWS**

The property's safety should be performing its own internal audits to help ensure that all elements within the property are in compliance with the SSPP. The plan should include a schedule of the audits, objectives of the audits, other participants as applicable and how identified discrepancies are resolved.

Describe the following:

18.1 Plan in place for the conduct of internal reviews.

18.1.1 Internal review plan defines the purpose, scope and objectives.

18.1.2 Internal review schedule established with performance measures to evaluate

various programs efficiency.

18.2 Procedure in place to conduct the internal reviews.

18.2.1 Audit sampling basis is defined for the conduct of internal reviews.

18.3 The roles and responsibilities of participants in internal review process are defined.

18.4 Internal review results are analyzed and recommendations developed and filed, review report format established.

18.5 Process in place to maintain the internal review report status, with individuals assigned for corrective actions.

18.5.1 Procedure in place to follow up the effectiveness of the corrective actions.

18.6 Process in place to receive, distribute and act upon public comments regarding service and operations safety in a timely, effective manner.

18.7 Internal reviews conducted of entire organization, including transportation/dispatchers operations, maintenance and administration.

**SECTION 19 — EXTERNAL REVIEWS**

The plan should address how the property and specifically safety, respond to audit/investigations made by organizations external to the property, as follows:

19.1 External organizations identified. Purpose, scope and authority of organization defined such as:

19.1.1 New York State Public Transportation Safety Board.

19.1.1.1 Other New York State agency's: NYSDOT, NYSDMV, NYS IG

19.1.2 National Transportation Safety Board.

19.1.3 USDOT FTA, Homeland Security- TSA.

19.1.4 American Public Transit Association.

19.2 Procedures in place for review and implementation, as applicable, of recommendations made by external auditing agency.

19.3 Comments/recommendations are filed with a rationale for actions.

**SECTION 20 – COLLECT AND MAINTAIN DATA**

The plan should identify the types of information collected on the property, how it is used to improve or verify the level of safety, where the information is filed and how it is retrieved. In addition the role of the Safety Department in analyzing and utilizing the data should be discussed.

20.1 Identify and Maintain Internal Safety Data Sources; PMI's, MDBF's, accidents, pre/post-trip conformance, preventability program. Define objectives.

20.2 Accident/Incident/Defect Reports Collected and Maintained in areas including, but not limited, to the following:

20.2.1 Fleet accident and incident reports are collected and maintained.

20.2.2 Facilities discrepancy (code violations, disrepair, low light levels, etc.). Reports are collected and maintained.

20.3 Inspection reports are collected and maintained in various areas including, but not limited to the following:

20.3.1 Scheduled maintenance reports are collected and maintained (PMI).

20.3.2 Corrective maintenance reports are collected and maintained.

20.3.3 Bus pre-trip and post-trip inspection reports are collected and maintained.

20.3.4 Bus safety inspection reports for other areas are collected and maintained.

20.3.5 Bus stops, bus shelters and surrounding area inspection reports are collected and maintained.

20.3.6 Route inspection reports are collected and maintained.

20.4 Prepare periodic reports, analysis and studies for management to review, based on safety data collected.

20.5 Results of safety data analysis are available to PTSB, for review.

20.7 Data collected is indexed, filed and readily retrievable.

**SECTION 21 – PROFESSIONAL DEVELOPMENT**

The plan should address the program in place to enhance the professional skills and personal development of the safety staff, to include the following:

21.1 Training and development plan in place for the safety personnel.

21.1.1 Training and development plan identifies the short term and long term needs to meet training requirements of PTSB.

21.1.2 Procedure in place to inform staff of new codes and regulations.

21.2 Safety staff encouraged to attend professionally accepted safety courses, such as at USDOT TSI, NTI and universities for professional development.

21.3 Safety staff encouraged to attend safety seminars and symposia as part of professional development plan.

21.4 Safety staff encouraged to participate in industry-wide organizations, such as NYPTA and APTA.

**SECTION 22 – APPENDICES**

The PTSB recognizes many police, procedures and forms used to safely operate your bus property are already in print format. Therefore, it is allowable and suggested that printed documentation be appended to your SSPP and labeled to be identified with the corresponding section and subsection within your SSPP format rather than repeating the information within the plan.

**SECTION 23 — CERTIFICATION**

**S Y S T E M  S A F E T Y  P R O G R A M  P L A N**
**CERTIFICATION STATEMENT**

**I,** _____ certify that the System Safety
*(name, title; signatory should be highest management level person)*

Program Plan for _____

*(name of company)*

has been properly distributed, is currently in effect, functioning as stated, and will be fully enforced by company management**.**

_____ _____

***Date*** ***Signature***

EI-1 - (11/06)

**PUBLIC TRANSPORTATION SAFETY BOARD**
**EQUIPMENT INVENTORY**

**CODES**
W - Wheelchair
L – Low Floor
C – Cameras
H – Hybrid
E – ECU/ECM/Black Box
O – Other_____

PROPERTY NAME: _____

| Make | Model | Seating Capacity | Total Number of Vehicles | Special Equipment W, L, C, H, E, Other |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
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**HAZARDOUS ASSESSMENT FORM**

There are four types of severity; Catastrophic, Critical, Marginal, and Negligible. These types are to be coded using the following:

**H - Highly Likely** L - **Likely** **U - Unlikely**

Describe hazardous assessment and then code severity.

1. _____

_____

_____

CATASTROPHIC CRITICAL MARGINAL NEGLIGIBLE

_____

_____

_____

_____

_____

CATASTROPHIC CRITICAL MARGINAL NEGLIGIBLE

3. _____

_____

_____

CATASTROPHIC CRITICAL MARGINAL NEGLIGIBLE

4. _____

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_____

CATASTROPHIC CRITICAL MARGINAL NEGLIGIBLE

5. _____

_____

_____

CATASTROPHIC CRITICAL MARGINAL NEGLIGIBLE

_____

_____